Sandra L. Wagner
Director -
Federal Regulatory

SBC Communications Inc.
1401 I Street, N.W.
Suite 1100
Washington, D.C. 20005
Phone 202 326-8860

January 18, 1995

EX PARTE OR LATE FILED

Ex Parte

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Re: LEC Price Cap Review, CC Docket No. 94-1

Dear Mr. Caton:

Attached for inclusion in the record of the above captioned proceeding are letters to Karen Brinkmann, Special Assistant to Chairman Hundt; Rudolfo Baca, Legal Advisor to Commissioner Quello; Lauren Belvin, Senior Legal Advisor to Commissioner Quello; James Coltharp, Special Advisor to Commissioner Barrett; Richard Welch, Legal Advisor to Commissioner Chong; James Casserly, Senior Legal Advisor to Commissioner Ness; and Richard Metzger, Deputy Bureau Chief-Operations, Common Carrier Bureau. Also attached is the document that accompanied each letter. The letters were delivered today, January 18, referencing the LEC Price Cap Review.

We are submitting two of copies of this notice in accordance with the Commission's rules governing ex parte presentations.

Please stamp and return the provided copy to confirm your receipt. Please contact me should you have any questions.

Sincerely,

Sandra L. Wagner

Attachments

cc: (Ex parte note only)
Karen Brinkmann
Rudolfo Baca
Lauren Belvin
James Coltharp
Richard Welch
James Casserly
Richard Metzger

Sallie L. Westbrook
Managing Director -
Investor Relations
and Shareowner Services

SBC Communications Inc.
175 E. Houston Street
Room 8-A-50
San Antonio, Texas 78205
Phone 210 351-2100
Fax 210 351-2071

January 17, 1995

Ms. Karen Brinkmann
Special Assistant to Chairman Hundt
Federal Communications Commission
1919 M Street, N.W., Room 814
Washington, D.C. 20554

Dear Ms. Brinkmann:

On January 3, 1995, an article appeared in Communications Daily which caused me concern. The article, entitled "Telephone Companies Weather Competition, Retain High Credit Ratings," suggests that telephone companies are not at significant risk from growing competition. This assessment is attributed to a report issued by Duff & Phelps Rating Agency.

My concern with this article is twofold. First of all, I disagree with the article's conclusion regarding the seeming immunity of telephone companies from the effects of competition. Secondly, this assessment is inconsistent not only with prior opinions expressed to me by Duff & Phelps, but also with the opinions I offered to the Commission in the context of the LEC Price Cap Review.

As you may recall, I stated that the external investment community is concerned about the uncertainty created by regulation, especially as it pertains to the ability of regulatory policy to keep pace with increasingly competitive market conditions. I also expressed my opinion that failure by regulators to continue (and improve upon) the progress begun four years ago when price caps were implemented would not be consistent with the continued evolution in the market place and, thus, will likely be viewed negatively by the external investment community.

To satisfy my own concerns about the Communications Daily article, I read the full report cited in the article (copy attached for your information) and spoke to the author of the article, Mr. Jim Stork. I am now satisfied that the opinions of Duff & Phelps are consistent with the opinions I have presented to the Commission. I am certain that, after reading Mr. Stork's complete report, you will agree that it is a balanced assessment and clearly does not represent an opinion that telephone companies are uniquely insulated from the effects of competition.

Sincerely,

Sallie L. Westbrook

Attachment

Sallie L. Westbrook
Managing Director -
Investor Relations
and Shareowner Services

SBC Communications Inc.
175 E. Houston Street
Room 8-A-50
San Antonio, Texas 78205
Phone 210 351-2100
Fax 210 351-2071

January 17, 1995

Mr. Rudolfo M. Baca
Legal Advisor to Commissioner Quello
Federal Communications Commission
1919 M Street, N.W., Room 802
Washington, D.C. 20554

Dear Mr. Baca:

On January 3, 1995, an article appeared in Communications Daily which caused me concern. The article, entitled "Telephone Companies Weather Competition, Retain High Credit Ratings," suggests that telephone companies are not at significant risk from growing competition. This assessment is attributed to a report issued by Duff & Phelps Rating Agency.

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SBC Communications Inc.
175 E. Houston Street
Room 8-A-50
San Antonio, Texas 78205
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Fax 210 351-2071

January 17, 1995

Ms. Lauren J. Belvin
Senior Legal Advisor to Commissioner Quello
Federal Communications Commission
1919 M Street, N.W., Room 802
Washington, D.C. 20554

Dear Ms. Belvin:

On January 3, 1995, an article appeared in Communications Daily which caused me concern. The article, entitled "Telephone Companies Weather Competition, Retain High Credit Ratings," suggests that telephone companies are not at significant risk from growing competition. This assessment is attributed to a report issued by Duff & Phelps Rating Agency.

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SBC Communications Inc.
175 E. Houston Street
Room 8-A-50
San Antonio, Texas 78205
Phone 210 351-2100
Fax 210 351-2071

January 17, 1995

Mr. James R. Coltharp
Special Advisor to Commissioner Barrett
Federal Communications Commission
1919 M Street, N.W., Room 826
Washington, D.C. 20554

Dear Mr. Coltharp:

On January 3, 1995, an article appeared in Communications Daily which caused me concern. The article, entitled "Telephone Companies Weather Competition, Retain High Credit Ratings," suggests that telephone companies are not at significant risk from growing competition. This assessment is attributed to a report issued by Duff & Phelps Rating Agency.

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SBC Communications Inc.
175 E. Houston Street
Room 8-A-50
San Antonio, Texas 78205
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Fax 210 351-2071

January 17, 1995

Mr. Richard Welch
Legal Advisor to Commissioner Chong
Federal Communications Commission
1919 M Street, N.W., Room 844
Washington, D.C. 20554

Dear Mr. Welch:

On January 3, 1995, an article appeared in Communications Daily which caused me concern. The article, entitled "Telephone Companies Weather Competition, Retain High Credit Ratings," suggests that telephone companies are not at significant risk from growing competition. This assessment is attributed to a report issued by Duff & Phelps Rating Agency.

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SBC Communications Inc.
175 E. Houston Street
Room 8-A-50
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January 17, 1995

Mr. James Casserly
Senior Legal Advisor to Commissioner Ness
Federal Communications Commission
1919 M Street, N.W., Room 832
Washington, D.C. 20554

Dear Mr. Casserly:

On January 3, 1995, an article appeared in Communications Daily which caused me concern. The article, entitled "Telephone Companies Weather Competition, Retain High Credit Ratings," suggests that telephone companies are not at significant risk from growing competition. This assessment is attributed to a report issued by Duff & Phelps Rating Agency.

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San Antonio, Texas 78205
Phone 210 351-2100
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January 17, 1995

Mr. A. Richard Metzger
Deputy Bureau Chief-Operations
Common Carrier Bureau
Federal Communications Commission
1919 M Street, N.W., Room 500
Washington, D.C. 20554

Dear Mr. Metzger:

On January 3, 1995, an article appeared in Communications Daily which caused me concern. The article, entitled "Telephone Companies Weather Competition, Retain High Credit Ratings," suggests that telephone companies are not at significant risk from growing competition. This assessment is attributed to a report issued by Duff & Phelps Rating Agency.

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Attachment

Duff & Phelps Credit Rating Co.
Telecommunications Ratings Group

SPECIAL REPORT

Competitive Risk Analysis: Telecommunications as Industrials

Telecommunications Firms' Financial Performance Continues to Approach the Level of Industrials

Competitive pressures are rapidly increasing within the local exchange telephone industry. As business risk grows, the financial performance of the industry will have to strengthen in order to maintain credit quality.

This report looks at the level of financial performance required to maintain a given level of credit quality in fully competitive industries, and then compares that to the current financial performance of the telecommunications industry. Because of the strong financial performance of the telephone industry in recent years, the median credit protection measures of the telephone companies have grown increasingly closer to the median credit protection measures generated by similarly rated industrial companies.

We then compare the relative levels of business risk between the telephone industry and 22 other industries. We do this by an in-depth analysis of the volatility of earnings and cash flow for these industries over the past fifteen years.

We also analyze the level of competitive threats that the telephone industry will face in the future assuming a fully competitive environment, and compare this to the level of competitive threats faced by typical industrial companies. Although business risk will clearly increase for the telephone industry in the years ahead, the competitive threats facing the telephone industry are likely to remain below average when compared to most industrial companies. As a result, the financial performance of the telephone industry will not have to be as high as the financial performance of most industrial companies in order to maintain a given credit rating. We believe that revenues from new services, cost-cutting initiatives, and underlying industry volume growth will allow the telephone companies to continue to modestly improve financial performance over the long-term. Those companies that remain committed to maintaining credit quality should be able to do so, even in an increasingly competitive environment.

However, we also note that less than 10% of the companies in our industrial universe are rated 'AA-' or higher. In contrast, approximately 60% of the companies in our telecommunications universe are rated 'AA-' or higher. As the regulatory incentive to maintain strong equity ratios disappears in a fully competitive environment, the willingness of the telecommunications companies to maintain current strong levels of financial performance will become an increasingly important credit rating factor.

October 1994

CHICAGO
NEW YORK
LONDON

James J. Stork, CFA
Group Vice President
(312) 368-3125

Financial Performance in a Competitive Arena

As competitive barriers have come down, investors have become increasingly concerned about the impact of competition on the credit quality of the local exchange telephone companies (LECs). The fear is that competition from the long distance carriers, competitive access providers (CAPs), cable TV companies and wireless companies will result in revenue losses, lower profit margins, deterioration in financial performance and lower credit quality.

Business risk is clearly increasing within the industry. Market shares are slowly, and in some cases rapidly, retreating from the 100% level. However, as we argued in our August 1993 industry report, "Credit Trends in a Competitive Environment," we believe the LECs have a number of competitive strengths that should allow for maintenance of credit quality despite increasing business risk. These factors include:

- the ability to continually drive operating costs lower;
- strong internal cash funding that allows for maintenance of conservative capital structures despite heavy capital expenditures;
- revenue growth from new services;
- alternative regulatory plans that have provided incentives for aggressive cost cutting by allowing the LECs to keep some of the benefits of reduced expenses;
- the ability to shift capital spending from conversion to digital central office switches and implementation of Signaling System Seven capabilities to the construction of fiber-intensive, broadband networks without causing a sizable increase in capital spending levels.

As a result of these strengths, we argued in our August 1993 report that the LECs would be able to improve their quantitative financial performance enough to offset expected increases in business risk, resulting in stable credit quality in the near-term. This has certainly happened in the past year, and we expect these trends to continue over the next several years. As can be seen in *Table 1*, the financial performance of the telecommunications industry has improved significantly in the past five years. (*For definitions of all ratios referenced in this report, see the sidebar below*). This rapid strengthening of financial performance (i.e., lowering of financial risk) has helped offset the increases in competitive threats and resulted in stable credit quality trends.

The critical question that we will address in this report is: To what extent does the quantitative financial performance of the LECs have to improve further to maintain credit quality in the face of continuing increases in competition and business risk? It is one of the fundamental tenets of credit analysis that higher business risk must be offset by lower financial risk if credit quality is to be maintained. That is why a steel company requires much higher quantitative performance to maintain a given credit rating than a utility company does. The steel company's earnings and cash flow are far more volatile than are those of utility companies. Therefore, the steel company requires a greater financial cushion to maintain a given credit rating. *Table 1* shows the application of this principal in practice.

In general, the financial performance of the industrial companies in a

Definitions of Key Terms

EBITDA/Interest (X) = Net earnings before interest, taxes, depreciation and amortization divided by gross interest expense.

EBITDA Margin (%) = Net earnings before interest, taxes, depreciation and amortization divided by total revenues.

EBITDA/Total Capital (%) = Net earnings before interest, taxes, depreciation and amortization divided by the sum of total long-term and short-term debt, preferred equity, and common equity.

EBITDA/Total Debt (%) = Net earnings before interest, taxes, depreciation and amortization divided by total long-term debt and short-term debt.

Fixed Charge Coverage (X) = Net earnings before interest and taxes plus the estimated interest component of off balance sheet fixed obligations divided by gross interest expense plus the estimated interest component of off balance sheet fixed obligations.

Pretax Interest Coverage (X) = Net earnings before interest and taxes divided by gross interest expense.

Our industrial analysts have typically focused their financial risk analysis on fixed charge coverages, as opposed to pretax interest coverage, which is more commonly used in utility analysis.

A fixed charge coverage adjusts the pretax interest coverage for the impact of off balance sheet items such as operating leases. Duff & Phelps Credit Rating Co. assumes that the interest component of operating leases is equal to one-third of annual operating lease expense (one-third rent expense). Because these off balance sheet items have tended to be minimal within the telecommunications industry, we have historically focused on the pretax interest coverage in our analysis.

Within the electric utility industry, however, off balance sheet items such as purchased power and generating plant lease obligations can have a significant impact on the credit quality of an electric utility. Therefore, our analysis of the electrics has always focused on an adjusted pretax interest coverage, essentially the same as a fixed charge coverage.

For comparative purposes relative to the industrials, we have calculated the fixed charge coverage for all of the telecommunications companies that we follow in Table 1. We have also shown the EBITDA interest coverages and EBITDA to Total Debt by rating category.

Median Levels of Financial Performance by Rating Category

Rating Category (Sample size)	EBITDA/Interest 1993	1992	1991	1990	1989	Fixed Charge Coverage 1993	1992	1991	1990	1989	EBITDA/Total Debt 1993	1992	1991	1990	1989
AAA															
Telecomm. (7)	12.5	10.9	9.5	10.0	9.9	6.4	5.9	4.8	5.1	5.1	97.2	84.9	83.2	83.9	86.0
Industrials (2)	51.5	34.0	23.8	25.1	30.0	17.7	14.1	11.2	12.8	15.0	225.0	225.0	200.0	183.0	225.0
AA+															
Telecomm. (8)	11.3	10.5	9.6	9.4	8.9	5.8	4.8	4.3	4.4	4.1	78.4	73.9	70.8	74.8	73.5
Industrials (3)	12.3	11.3	9.9	6.6	11.8	6.4	6.3	5.7	5.4	7.2	100.0	111.1	100.0	111.1	166.7
AA															
Telecomm. (7)	10.3	8.9	8.4	8.5	8.2	5.1	4.4	4.3	4.3	4.3	73.5	72.4	68.6	72.2	72.2
Industrials (5)	14.0	12.1	12.5	10.0	10.3	7.2	6.0	6.9	6.4	6.6	111.1	100.0	125.0	90.9	111.1
AA-															
Telecomm. (5)	9.6	8.7	9.1	8.5	8.7	4.6	4.2	4.5	4.7	4.2	71.3	76.6	71.2	75.4	74.7
Industrials (3)	18.7	12.6	11.2	20.9	14.0	6.6	4.8	6.1	5.3	4.2	142.9	90.9	76.9	500.0	250.0
A+															
Telecomm. (8)	8.1	7.5	6.8	7.2	7.5	3.7	4.1	3.5	3.6	3.4	64.9	61.7	56.9	59.4	64.8
Industrials (15)	9.0	7.7	5.7	6.4	8.2	4.9	3.4	3.9	3.7	4.9	69.7	55.6	56.3	66.7	71.4
A															
Telecomm. (5)	7.6	7.4	6.4	6.7	6.2	3.6	3.3	2.8	3.2	2.8	58.7	58.6	55.5	55.6	54.9
Industrials (17)	7.3	7.5	6.6	5.0	4.5	4.4	3.9	3.7	3.8	3.5	55.6	58.3	58.8	62.5	69.0
A-															
Telecomm. (2)	6.2	5.4	5.0	5.6	7.0	2.7	2.4	2.4	2.8	3.3	47.3	46.0	42.6	46.1	55.3
Industrials (12)	5.0	4.6	5.1	4.5	5.2	2.4	2.6	2.6	2.5	3.0	47.7	43.6	42.0	50.0	52.6
BBB+															
Telecomm. (1)	6.2	5.9	5.3	5.0	5.2	2.8	2.3	2.2	2.0	2.3	56.7	55.0	51.6	44.6	45.7
Industrials (18)	5.1	4.6	3.9	4.1	5.0	2.8	2.4	2.2	2.6	2.6	47.7	47.7	40.0	42.6	52.6
BBB															
Telecomm. (1)	5.9	5.2	4.7	5.5	4.1	2.4	2.1	1.9	2.6	1.6	40.8	35.9	30.9	36.7	32.9
Industrials (13)	3.9	4.1	3.4	4.4	3.7	2.3	2.4	1.8	2.2	2.1	38.5	43.5	29.4	44.5	52.6
BBB-															
Telecomm. (2)	6.1	3.3	2.5	2.4	2.2	3.4	1.9	1.4	1.3	1.1	36.1	30.0	28.2	22.8	27.9
Industrials (16)	3.1	2.8	2.3	2.6	3.2	1.7	1.5	1.3	1.5	1.6	27.9	26.3	23.9	23.3	33.9

Data: Compustat Calculations: Duff & Phelps Credit Rating Co.

given rating category is higher than the financial performance of the telecommunications companies.

What is interesting to note is that the median quantitative measures of protection for the telecommunications companies are in many cases already very near, or even above, the levels required for similarly rated industrial companies. For example, the 1993 median EBITDA interest coverage ratio and EBITDA to Total Debt ratio for the 'A' rated telecommunications companies are higher than the median ratios for the 'A' rated industrials (7.6X vs. 7.3X and 59% vs. 56%, respectively). There are numerous other examples where the telecommunications quantitatives are near or above the quantitatives of the similarly rated industrial companies.

Investors can draw several other conclusions from Table 1. The differential between the ratios of similarly rated industrial and telecommunications companies has narrowed in the past five years because of the solid financial performance of the telecommunications industry during that time. We have not upgraded many telecommunications companies despite the industry's strong financial performance because the business risk within the industry was also rising.

It is also noteworthy that the gap between the financial performances of the two groups of companies is wider in the higher rating categories. In the 'BBB' rating category, the median 1993 financial performance of the telecommunications companies was, without exception, stronger than the median 1993 financial performance of the industrials, as measured by the three ratios shown in Table 1.

What this dichotomy suggests is that the hurdle to maintain a 'AA' or 'AAA' rating in a competitive industry is quite high. As the competitive threats within the telecommunications industry continue to escalate, companies rated 'AA' and 'AAA' will have to continue to modestly improve their financial performance to maintain their current ratings. However, the telecommunications companies that are rated in the 'BBB' category have already experienced a dramatic increase in the volatility of their operations.

It is important to note that the sample of telecommunications companies rated 'BBB' is small (there are only four companies spread across the three gradations). Two companies (Sprint Corp. and IDB Communications) generate a large portion of their operating cash flow from the fully competitive long distance business; the other two (Centel and Telephone and Data Systems) have made significant investments in the relatively more volatile cellular industry.

Our ratings currently reflect the higher business risk of the long distance and cellular industries. The results of these companies already compare quite well with the kind of average financial performance that is required for an industrial company to be rated within the 'BBB' category. These 'BBB' rated telecommunications companies do not need to generate increasingly stronger financial performance to maintain their current ratings. Any continued improvement in quantitatives will likely result in upgrades.

We believe the median financial performance of the telecommunications companies in the 'BBB' category also highlights our concern about the credit ratings of the cable TV companies. Among the cable TV companies, only TCI and Time Warner carry investment-grade ratings. Yet the financial performance of TCI and Time Warner as measured by the three ratios shown in Table 1 is well below the median financial performance of the 'BBB' rated telecommunications and industrial companies. As the two industries begin to compete directly, the level of business risk faced by cable TV companies and telecommunications companies will become increasingly similar. As a result, the financial performance of the cable TV industry is going to have to improve if credit ratings are to be maintained.

II Business Risk in a Competitive Arena

To what extent is further financial performance improvement required to maintain the credit quality of the higher-rated telecommunications companies in the face of increasing competition? To answer that, we need to explore the differences in business risk between the telecommunications companies and the average industrial company.

The level of business risk is essentially a subjective judgment that incorporates earnings and cash flow volatility, economic cyclicality, the level of price competition within an industry, barriers to entry, the market position of each company, the number of competitors, the average profitability of the industry, growth potential and numerous other factors. The work of Michael Porter, an acknowledged expert on competitive strategies, is useful in comparing the business risk of different industries. Porter has described the five basic competitive forces as (1) Ease of Entry and Exit, (2) Rivalry Between Existing Competitors, (3) Pressure from Substitute Products, (4) Bargaining Power of Buyers and (5) Bargaining Power of Suppliers.

Using Porter's five forces as a general guide, we can compare the competitive position of the telecommunications companies with steel producers. Historically, one factor was of overwhelming importance when assessing the competitive nature of the telecommunications industry: government policy as a barrier to entry. As a result of the regulatory mandate that prevented competition and essentially guaranteed the industry recovery of its operating expenses (including a return of and on capital investment), the cash flow volatility and therefore business risk of the local exchange telephone industry was quite low.

But let's look at the telecommunications industry assuming there are no regulatory restrictions on competition. Even in a fully competitive telecommunications environment, the barriers to entry will remain quite high. The capital investment required to enter the local exchange market is huge as are the potential economies of scale. LECs today have the ultimate in secure distribution channels — they own the distribution channel (the local loop). Competitors can build a similar distribution channel (cable TV and wireless networks), but only at high cost. The industry is insulated from competition from imports. You can't build a local telephone network with cheap labor in Asia and ship it to a high-cost area in the United States. Brand identification is very high, although potential competitors such as AT&T and MCI have

strong brands of their own.

Switching costs are high. To use a competitive access provider as a local carrier, the end-user currently is required to change his phone number.

In the future, number portability will allow a customer to choose another local carrier without changing his/her phone number. This will significantly lower switching costs.

The combination of all the factors mentioned above leads us to conclude that there will remain a limited number of competitors. The LECs, by their size, will remain the most significant force in the local exchange business in the same manner that AT&T is the most significant force in the long distance industry.

The bargaining power of buyers (businesses and consumers) also suggests relatively low competitive forces. No one customer has significant bargaining power over the LECs because virtually every business and home has a phone.

In only a few businesses (such as telemarketing) is the cost of telecommunications service a significant cost of doing business, implying that customers have little leverage. In addition, telecommunications spending by consumers is a small portion of total household expenditures. We believe most consumers view telecommunications service as a bargain relative to the value added to their businesses or their personal lives.

The conclusion that can be drawn from this analysis is that even in a fully competitive environment, the LECs are likely to face a below average level of competitive threats.

Let's contrast that with the steel industry. Although the steel industry does have large capital barriers and large economies of scale, brand identification is low as are switching costs. (The growth of minimills has proven that the capital barriers to entry in this business are not as high as they once were.)

Additionally, steel is a commodity that can be provided by any number of companies through open distribution channels. There are a large number of competitors in the industry, with no one dominant company. Steel faces continual threats from substitute products such as aluminum and plastic.

An important negative competitive issue is the strong bargaining power of the automotive companies, the largest buyer of steel products. Steel is a large part of the cost of their product (although this is becoming less true) and so they are extremely motivated to get the best price possible. Industry growth is slow and the dependence on the auto and construction industries leads to high economic cyclicality. This analysis suggests that the competitive threats and business risk within the steel industry are well above average.

Although business risk analysis employs a relatively high level of subjective judgment, some of the major business risk factors can be quantified.

At its most basic level, business risk analysis attempts to understand the volatility of earnings and cash flow of a company or an industry. Therefore, we have undertaken an extensive analysis of the volatility of different industries using several key statistical measures.

Table 2 explores the historical vola-

Table 2

Coefficient of Variation 1979-1993

Industry (sample size)	% Change EBITDA Coefficient	Industry	Fixed Charge Coverage Coefficient	Industry	Pretax Interest Coverage Coefficient	Industry	EBITDA/ Total Capital Coefficient
Health Care (30)	0.32	Food/Beverage	0.08	Food/Beverage	0.09	Food/Beverage	0.05
Food/Beverage (23)	0.50	Diversified Industrials	0.10	Diversified Industrials	0.11	Clothing	0.06
Media (17)	0.72	Electric Utility	0.11	Electric Utility	0.11	Retail	0.09
Clothing (11)	0.78	Clothing	0.13	Clothing	0.13	Consumer	0.09
Electric Utility (24)	0.81	Retail	0.15	Electrical Equipment	0.16	Diversified Industrials	0.09
Telecomm. (11)	0.82	Electrical Equipment	0.17	Retail	0.17	Electric Utility	0.10
Services (18)	0.84	Services	0.19	Chemical	0.22	Health Care	0.10
Retail (38)	0.92	Telecommunications	0.19	D&P Composite	0.22	Services	0.11
Electrical Equip. (16)	1.17	D&P Composite	0.20	Services	0.22	Electrical Equipment	0.11
Aerosp./Defense (12)	1.19	Chemical	0.20	Telecommunications	0.24	D&P Composite	0.11
D&P Composite* (406)	1.36	Aerospace/Defense	0.22	Machinery	0.25	Transportation	0.12
Consumer Prod. (27)	1.48	Consumer Products	0.23	Consumer Products	0.26	Aerospace/Defense	0.13
Transportation (16)	1.69	Health Care	0.24	Health Care	0.28	Chemical	0.13
Homebuild./Furnish. (13)	1.93	Machinery	0.25	Natural Gas	0.28	Natural Gas	0.14
Chemical (19)	1.99	Natural Gas	0.28	Transportation	0.28	Telecommunications	0.16
Natural Gas (15)	2.28	Transportation	0.29	Aerospace/Defense	0.29	Oil	0.16
Diversified Ind. (21)	2.31	Paper	0.35	Computer Sys./Software	0.36	Machinery	0.19
Autos/Trucks (13)	2.39	Comm./Office Equip.	0.36	Paper	0.36	Media	0.19
Comm./Office Equip. (10)	2.56	Computer Sys./Software	0.36	Comm./Office Equip.	0.43	Paper	0.20
Paper (17)	2.96	Media	0.38	Oil	0.43	Homebuild./Furnishing	0.21
Machinery (21)	3.33	Oil	0.38	Media	0.44	Computer Sys./Software	0.24
Computer Sys./Soft. (21)	3.37	Homebuild./Furnishing	0.42	Homebuild./Furnishing	0.49	Comm./Office Equip.	0.25
Metals (19)	4.17	Metals	0.76	Metals	0.79	Autos/Trucks	0.37
Oil (29)	115.20	Autos/Trucks	0.82	Autos/Trucks	0.83	Metals	0.42

*Excludes electric utilities and telecommunications companies

Data: Comoustat

Calculations: Duff & Phelps Credit Rating Co.

tility exhibited by different industries. The methodology that we used in compiling Table 2 is described more fully in *Appendix A* on page 9.

In Table 2, we have ranked industries by the coefficients of variation over the past 15 years for four key ratios. Those industries with higher coefficients have experienced more volatility. As expected, the results provide support for the type of intuitive risk assessments that we regularly make in our rating judgments.

Not surprisingly, the auto and metals industries exhibit the highest volatility. The food and health care industries exhibit the least volatility.

It is interesting to note that the food, health care and clothing industries generally exhibited less volatility than the electric utility and telecommunications industries during the past 15 years.

Being regulated monopolies has not totally eliminated business risk. In fact, we would argue that the regulators were the cause of some of the observed volatility, particularly when you consider the impact of the colossal regulatory battles undertaken by the electric utility industry as it tried to recover its massive investment in nuclear (and some coal) power plants in the 1970s and 1980s.

Inflation and regulatory lag also cause some volatility in the utility industry compared with the relatively inelastic demand for food and health care, where higher costs are passed along to consumers as they are incurred.

There were some results that proved somewhat surprising. For example, the volatility of the clothing and retail industries was less than expected.

By further examining the underlying data, we noticed that although the financial performance of the companies that made up these two industries appeared quite volatile, the combined industry data was much less so. In other words, when one retailer posted a poor year, this tended to be offset by the strong results of another retailer. Our retail universe also encompasses supermarkets and restaurant chains, which tend to offset the volatility exhibited by specialty retailers.

From Table 2, we can see that the telecommunications companies have experienced lower volatility than the average industrial company. Of course, the telecommunications industry was heavily regulated during much of the past 15 years, which contributed to its relative stability. What we really need to look at is the volatility in an increasingly competitive environment. To get some idea of the increase in volatility that occurred as a result of the breakup of AT&T in 1984, we looked at our telecommunications universe pre-1984 and post-1984. The results are shown in *Table 3*.

Prior to 1984, the Bell companies were still part of AT&T, which was a heavily regulated company with a monopoly in local exchange operations in most of the United States and a near monopoly in long distance. After 1984, AT&T's long distance franchise began to erode rapidly, the local exchange companies began to suffer growing competitive losses, and cellular operations became a growing (and more volatile) piece of the cash flow stream of the industry.

As expected, Table 3 demonstrates a dramatic increase in volatility between these two periods. Yet notwithstanding the significant increase in volatility versus pre-1984, when compared with industrial companies, the post-1984 telecommunications industry has remained one of the least volatile industries.

To break this down even further, Table 3 also looks at the volatility of the fully competitive long distance industry since 1984 and the increasingly competitive local exchange industry since 1984.

The long distance industry exhibits higher volatility than the local exchange industry. But once again, the important point is that the higher risk portion of the telecommunications industry (the long distance industry) during the higher risk period of the past fifteen years (1984 to 1993) still exhibited below average volatility when compared to the typical industrial company.

We believe the long distance industry offers a useful comparison for judging the potential volatility of the LECs in a more competitive environment. The two industries have many linkages.

The access revenues of the LECs are nothing more than payments by the long distance companies for the use of the LECs' networks for the origination and termination of long distance calls. Therefore, long distance minutes of use generated by the customers of the long distance carriers are directly correlated to the access minutes of use provided by the LECs.

Additionally, the long distance companies are the natural competitors for intraLATA toll calls now that competition is allowed in this business in nearly every state. Therefore, the volatility of the intraLATA toll business of the LECs should be similar to the volatility of the intrastate long distance business of the long distance carriers.

Of course, we expect the local service piece of the LECs revenue stream will remain subject to only minimal competition in the near term. As a result, we expect that the LEC industry will exhibit less volatility in the next 10 years than the long distance industry has in the past 10 years. Yet as can be seen in Tables 2 and 3, the long distance industry has exhibited more stability in the past 10 years than the average industrial company.

Although no one can estimate perfectly how volatile the earnings and cash flow of the telecommunications industry will become in a more competitive environment, our subjective analysis of the competitive forces facing the LEC industry and our comparison of the LEC industry to the long dis-

Coefficients of Variation

	% Change in EBITDA	Fixed Charge Coverage	PreTax Int. Coverage	EBITDA/ Total. Cap.
Telecom: pre-1984	0.67	0.08	0.08	0.02
Telecom: post-1984	0.46	0.18	0.20	0.07
Long Distance: post-1984	0.87	0.26	0.30	0.08
Local Exchange: post-1984	0.72	0.10	0.12	0.05

The long distance universe consists of AT&T, MCI and Sprint. The local exchange universe consists of Ameritech, Bell Atlantic, BellSouth, GTE, NYNEX, Pacific Telesis, Southwestern Bell and U S WEST. The telecommunications universe is the combination of the local exchange and the long distance universes.

Data: Compustat Calculations: Duff & Phelps Credit Rating Co.

tance industry lead us to conclude that, although the business risk in the LEC industry is clearly increasing, the level of business risk is likely to remain below average when compared with most industries.

The stable growth in volumes, relative lack of economic cyclicality, high profit margins and high barriers to entry all suggest a modest business risk profile. Therefore, we do not believe that the LECs will have to generate financial performance equivalent to the performance of the average industrial company to achieve the same rating. In other words, to maintain a 'AA' rating, we do not believe that the typical LEC will have to achieve a fixed charge coverage level of 7.2 times or an EBITDA/Total Debt ratio of 111% (the median 1993 levels for 'AA' rated industrials).

Although modest further strengthening in quantitative protection measures will be required to hold credit quality at current levels as business risk continues to escalate, we do not believe that the LECs have to fully close the gap and match industrial company quantitatives to maintain a given rating.

In our view, the biggest threat to the stability of the LECs cash flow would be if market share losses occur in such a rapid fashion that cost cutting and revenues from new services are not able to immediately offset the negative impact of the market share losses.

Competitive pressures will not always impact companies in a stable and predictable fashion. There are likely to be years when market share losses and price cutting will result in lower credit protection measures. Those companies that generate continued improvements in financial results today will be better able to withstand any near-term pressure that develops as a result of increased competition. With a higher financial cushion, a modest short-term decline in quantitative credit protection measures will not automatically result in a downgrade. Importantly, we believe the LECs can continue to strengthen their financial performance over the long term. Given sufficient time to implement currently planned initiatives, cost-cutting, revenues from new services, and underlying volume growth should allow the LECs to offset competitive market share losses and price cuts.

Slowly losing market share in a growing market need not always lead to deterioration of earnings and credit quality. AT&T is a good example of this principle. Between 1984 and 1993, AT&T's market share in the long distance industry dropped from more than 90% to less than 60% and prices fell dramatically.

Yet, AT&T's long distance service revenues still grew at a compound annual pace of 1%. Its gross margin on long distance services more than doubled, from $7.8 billion in 1984 to $15.1 billion in 1993, a compound average annual growth rate of 7.7%. AT&T's cash flow (funds from operation excluding changes in working capital and before dividends and capital expenditures) grew an average of 8.4% annually (from $4.9 billion to $10.1 billion), and its EPS growth rate was 10.5% (from $1.25 to $3.08, adjusted to exclude one-time items).

The overall growth of the long distance industry allowed AT&T to grow revenues in every year, even while dramatically losing market share and cutting prices. Its strong earnings growth was achieved through aggressive cost-cutting efforts.

During that same time period, AT&T's pretax interest coverage (excluding its financial services operations which are appropriately leveraged at much higher levels) grew from 3.0X in 1984 to 12.9X in 1993. Its debt ratio (also excluding financial services) dropped from 39% to 28%.

The decline in the debt ratio is even more dramatic when you consider that AT&T has taken pre-tax write-offs totaling roughly $20 billion during the same 10-year period. The reduction in the debt ratio was achieved despite these write-offs.

The dramatic improvement in AT&T's earnings, cash flow, and credit protection measures during the last 10 years is not the performance of a company that has struggled to survive in an increasingly competitive environment. This is the story of a company that has thrived following its release from the regulatory restrictions and cultural lethargy of a 100-year-old monopoly. And it has thrived despite losing 30 percentage points of market share in a 10-year period.

III Commitment to Credit Quality

Our biggest concern for the LECs remains that some managements will decide to capitalize their companies with more leverage following the eventual elimination of rate of return regulation.

Rate of return oversight gives all utilities an incentive to maintain as much equity in their capital structures as the regulators will allow. Because regulators have allowed many LECs to earn the higher authorized equity returns on equity balances of up to 60% of total capital, many LECs have quite logically capitalized their companies with a thick component of equity.

These strong capital structures have led to the large number of 'AA' and 'AAA' rated LECs.

In a fully competitive market, rate levels (i.e., prices) will not be set based upon how much equity is in the capital structure. As a result, we are concerned that some LECs will rethink their capital structure goals and decide that the costs of a 'AAA' are greater than the benefits of a 'AAA'. In other words, the lower cost of debt that results from a 'AAA' does not offset the earnings dilution caused by having such a high equity ratio.

This is especially true given that the gap between LEC financial performance and industrial company financial performance is greatest at the highest rating levels. In other words, the cost of a 'AAA' is relatively higher in a competitive environment.

We believe it is not just a coincidence that roughly one-third of the telecommunications companies in our universe are rated 'AAA' or 'AA+', but less than 5% of the industrial companies in our universe are rated 'AAA' or 'AA+'.

Nonetheless, even with the adoption of alternative regulation in many states, we believe the potential for significant changes in capital structure within the industry remains a longer-term threat.

Earned returns are quite high throughout the industry; therefore, the LECs are extremely wary of lowering the amount of equity in their capital structure. To do so will only increase already strong earned returns and in-

vite the increased scrutiny of regulators.

Additionally, although the average LEC subsidiary rating is 'AA', the average rating of the parent companies is 'A'. If the subsidiaries were to increase leverage, the parent companies would have to deleverage just to maintain their current ratings.

Finally, we expect all companies will eventually follow the lead of U S WEST and Bell Atlantic and adopt faster depreciable lives. This will cause reported debt ratios to jump to levels that better reflect today's economic reality. Because of this, some companies may prove reluctant to push debt ratios even higher. As a result, rather than seeing dramatic changes in capital structures, we expect that any changes will be evolutionary.

We are more concerned in general about the credit quality of the parent companies than we are of their subsidiaries. We continue to see numerous investment opportunities that will put pressure on the capital structures of the parent companies unless these investments are financed in part with equity.

Opportunities for investments in local exchange, cable TV, and wireless projects are likely to abound, domestically and internationally. Depending on the cost of spectrum in the auction and the size of the population, or "pops," that each company or partnership intends to bid for, personal communications services (PCS) could easily require investments of $1-2 billion. Programming investments would also likely pressure parent company creditworthiness.

However, it is important to reiterate that through prudent management of the balance sheet, companies committed to strong credit quality will likely be able to maintain credit quality.

A good example is the way that U S WEST offset the risks associated with its investment in Time Warner Entertainment. Although Time Warner has a significant debt load, U S WEST completed a sizable equity offering and exited from the higher risk financial services businesses in order to maintain its credit quality following the Time Warner investment. U S WEST's acquisition of the Atlanta cable TV properties also was completed with a sizable portion of equity in order to preserve credit quality.

U S WEST views the cable TV industry as one of its greatest competitive threats. Most cable TV companies are rated non-investment grade. Therefore, U S WEST sees its credit strength as a competitive advantage and has indicated a desire to maintain or improve its ratings in the future.

IV Conclusions

■ Competition has increased dramatically in the LEC industry and will continue to do so. The LECs' financial performance will have to continue to improve modestly to offset higher business risk if credit ratings are to be maintained, particularly in the 'AA' and 'AAA' category. However, because of the strong financial performance of the LECs in recent years, the median credit protection measures of the LECs by rating category have grown increasingly closer to the median credit protection measures generated by similarly rated industrial companies.

■ Although business risk will be higher in the future, the business risk facing the LECs is likely to remain below average when compared to most industrial companies. As a result, the financial performance of the LECs will not have to be as high as the financial performance of most industrial companies in order to maintain a given credit rating.

■ Through revenues from new services, cost-cutting initiatives, and underlying industry volume growth, we believe the LECs can continue to modestly improve financial performance. Therefore, we continue to expect generally stable rating trends for the LECs over a two to four year time frame.

■ We believe there is relatively more downside potential in the ratings of the parent companies and of those LECs currently rated 'AA+' and 'AAA'. Those that choose to maintain credit ratings should be able to do so. Beware of those that are not fully committed to maintaining credit quality. ◆

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A Methodology of Calculating Volatility

We have measured volatility by calculating the coefficient of variation for four separate measures of financial performance over the past 15 years.

The four measures that we looked at are the percent change in EBITDA, fixed charge interest coverage, pretax interest coverage, and EBITDA to total capital. The EBITDA and pretax interest coverage are two of the most basic measures of credit quality. As such, however, they suffer from one flaw relative to the purpose of this study.

Any interest coverage calculation can fluctuate as a result of variability in earnings and cash flow or as a result of changes in the company's capital structure. In other words, interest coverages reflect business and financial risk. In an effort to isolate business risk, we looked at the percent change in EBITDA and the EBITDA to total capital ratio.

Although EBITDA to total debt is a more traditional indicator of credit quality, EBITDA to total capital is an indication of the cash return on total investment, whether that investment is supplied by debt holders or shareholders. Changes in this ratio, therefore, do not reflect volatility caused by changes in the capital structures of the companies being analyzed. This allows us to better compare the relative level of business risk between industries.

We compiled from Compustat the annual financial information needed to calculate these four ratios for approximately 440 companies over the past 15 years. We then divided the 440 companies into 23 industries.

We added the individual company information to derive an annual industry EBITDA figure and divided this by total industry interest expense to calculate our industry EBITDA interest coverage for each year. It should be noted that by compiling the data in this manner, the industry ratios are essentially the weighted average ratios of the companies that make up each industry. Although there are 13 companies in our automotive/trucking industry, GM, Ford, and Chrysler dominate the industry totals.

We then calculated the coefficient of variation for each of the 15-year series of industry ratios that we derived. The standard deviation is the basic measure of volatility used by statisticians.

However, the standard deviation is size-dependent and therefore is not comparable between industries with different absolute levels of EBITDA or interest coverage.

In other words, if the calculated pretax interest coverages for two separate industries happened to be equally variable, but the average level of coverage in one industry was 5.0X and in the other it was 10.0X, the second industry would have a standard deviation twice the standard deviation of the first industry.

The coefficient of variation adjusts for this data differential by dividing the standard deviation of a sample by the mean of the sample. The coefficients of variation for each ratio over the past 15 years sorted by industry are what is shown in Table 2.

We made very few adjustments to the raw data provided by Compustat. In 1988, U.S. GAAP required that financial statements begin to consolidate the financial services subsidiaries that previously had not been consolidated. As a result, there was a significant jump in the data in 1988 for the auto (GM, Ford, and Chrysler) and electrical component (GE) industries. This jump introduced artificial distortion into the numbers and as a result, the coefficient of variations shown in Table 2 for these industries reflect only the years prior to 1988.

We pulled from Compustat only data items that excluded non-recurring or unusual items. However, we did notice that the data included the impact of very large non-cash, non-recurring items for AT&T in 1986 and Columbia Gas in 1991. We adjusted the data to correct this error.

Although there are other adjustments that might have been made to the data, checking and adjusting the more than 130,000 data items that made up our study is beyond the scope of this study (and the patience of its authors). We were after order of magnitude differences between the industries, and the data clearly supports our intuitive expectations. ◆

Industry Growth Rates
1979 -1993

Industry (sample size)	Revenue CAGR*(%)	EBITDA CAGR(%)	Operating Income CAGR(%)
Oil (29)	1.2	-0.6	-4.1
Metals (19)	2.4	0.1	-4.2
Diversified Industrials (21)	3.2	4.3	3.5
Natural Gas (15)	3.4	3.0	2.1
Chemical (19)	4.3	4.9	3.4
Telecommunications, post-'84 (11)	4.5	5.5	4.9
Machinery (21)	5.3	3.6	2.4
Autos/Trucks, pre-'88 (13)	5.5	8.1	8.2
Composite, excluding utilities (406)	6.2	5.7	4.6
Electric Utility (24)	6.7	8.2	7.7
Paper (17)	6.8	4.9	2.8
Aerospace/Defense (12)	7.0	7.4	7.1
Consumer Products (27)	7.8	6.1	5.5
Homebuilding/Furnishings (13)	7.9	6.9	6.4
Communications/Office Equip. (10)	8.0	4.8	2.4
Electrical Equipment, pre-'88 (16)	8.4	8.3	7.0
Transportation (16)	9.3	9.0	7.7
Food/Beverage (23)	9.8	11.7	11.4
Media (17)	10.0	11.8	10.1
Health Care (30)	10.1	11.8	11.8
Services (18)	10.1	12.8	11.8
Computer Systems/Software (21)	10.5	3.3	-1.3
Retail (38)	10.6	10.9	10.2
Clothing (11)	11.4	13.8	14.4

*CAGR= Compound annual growth rate

Average Industry Credit Protection Measures
1979 - 1993

	Fixed Charge Coverage	Pretax Interest Coverage	EBITDA/ Total Capital	EDITDA Margin
Natural Gas	2.0X	2.1X	19.1%	14.8%
Electric Utility	2.4	2.5	15.5	33.9
Transportation	2.6	3.2	19.3	16.3
Diversified Industrials	2.6	2.8	19.4	15.0
Machinery/Diver. Manuf.	2.7	2.9	19.1	12.1
Retail	2.7	3.3	21.5	7.7
Metals	2.8	3.0	15.7	12.5
Paper	2.9	3.0	17.7	14.2
Autos/Trucks (Pre-'88)	3.2	3.5	27.1	9.8
Telecom. (Post-'84)	3.5	3.9	27.8	29.4
Composite - excl. utilities	3.6	4.1	23.9	14.2
Chemicals	3.7	4.2	26.1	17.5
Commun./Office Equip.	3.7	4.8	23.1	15.4
Services	4.1	5.3	24.1	13.8
Oil	4.4	5.1	28.0	15.7
Homebuilding/Furnishings	4.5	5.0	20.7	10.6
Media	4.6	5.7	25.0	20.9
Consumer Products	4.8	5.5	26.0	11.0
Aerospace/Defense	5.1	6.8	29.1	10.0
Food/Beverages	5.2	5.7	28.2	15.3
Clothing	5.9	9.2	29.1	13.1
Computer Systems/Software	6.7	9.4	30.4	22.6
Electrical Equipment (Pre-'88)	6.7	8.2	28.3	14.5
Health Care	8.0	9.6	30.4	22.3

B Supplemental Comparative Data

Tables 4 and 5 provide additional insights into the differences between the 23 industries in our study and is provided primarily as supplemental data. Table 4 compares the growth rates of each of the industries. Because the AT&T divestiture dramatically changed accounting practices within the industry, we have shown the growth rates of the telecommunications industry only since 1984. After divestiture, one of the primary expense items for AT&T (access costs) became one of the major revenue items for the local exchange industry (access revenues), resulting in double counting of revenues relative to reported financial statements prior to 1984.

Table 5 compares the 15-year average level of various ratios by industry. The strong margins and steady growth potential of the telecommunications industry are exhibited by the data in these tables. ◆

Data: Compustat

Calculations: Duff & Phelps Credit Rating Co.

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